CORArchitecture

COTTAGE CLUSTER

L1	60' x 120'	ALLEY
WHITE HAT	NO DEPARTURES	

PROJECT DATA

COMPONENT		AMOUNT
LOT SIZE		7200
FAR		0.93
NUMBER OF UNITS		5
TOTAL GROSS SQUARE FOOTAGE		7211
NUMBER OF PARKING STALLS		6
TYPE OF PARKING	Nose in parking off Alley	
OPEN SPACE TOTAL		1150
OPEN SPACE AT GRADE		1150
OPEN SPACE ABOVE GRADE		0
AMENITY SPACE SQUARE FOOTAGE		1150
GREEN FACTOR (attach calculations)		0.63
LOT COVERAGE (SF)		38.5%
BUILDING HEIGHT/ROOF PEAK		33'-0"
IMPERVIOUS SURFACE		51.0%
OPEN SPACE/LOT SIZE RATIO		16.0%
UNIT DENSITY (UNITS PER LOT AREA)	1 unit per:	1440 SF

ENABLING FACTORS:

1. This scheme mixes elements of the cottage standards with multifamily townhouse standards.
2. Common open space in lieu of private provides far better amenity and community space.
3. Alley access is essential, otherwise the parking and vehicle circulation eats up too much site area.

GATING MECHANISMS:

1. FAR is self limiting and can only approach 1.0 at best. The scheme would probably not pencil on an L3 lot.
2. The scheme will not work well on lots less that 60' wide. It would work very well on larger lots or as a mirrored scheme on double lots
3. L1 density limit holds the scheme to 5 units and drives a developer to provide larger units rather than a variety of sizes. Increasing that limit would allow for more housing choices in this scheme.
4. This scheme was originally explored according to the cottage housing guidelines. However, cottage housing was too restrictive and the idea had to be transformed into townhouses in order to get enough FAR to make the scheme viable.

COST FACTORS:

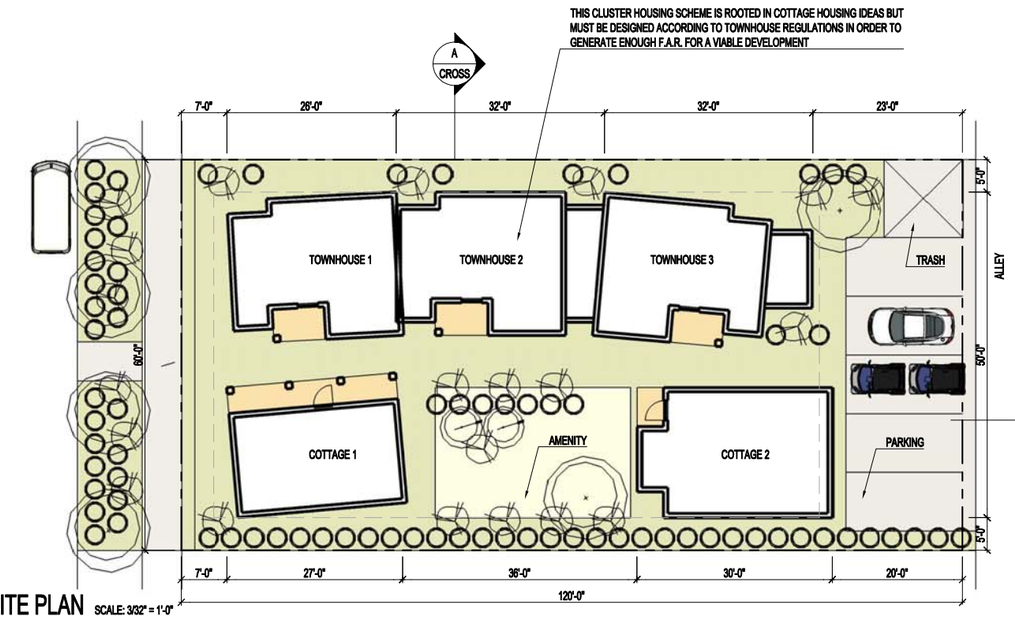
1. Cost to build would be moderate to high. Free standing structures are inefficient compared to attached.
2. Ability to adapt easily to sloping sites could help reduce cost of excavation and soil import / export in some cases

EVALUATION:

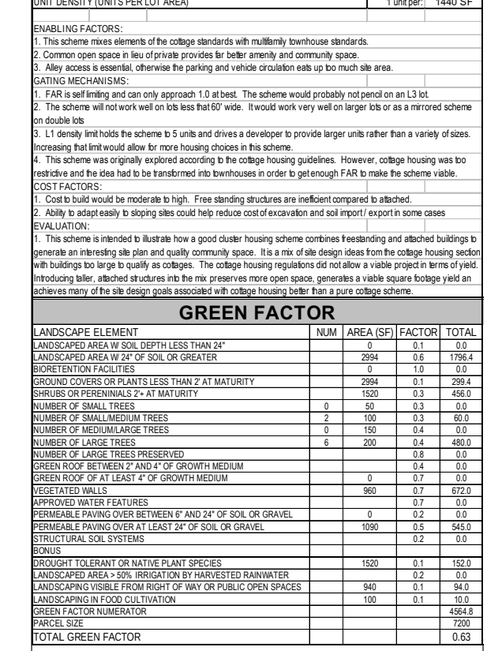
1. This scheme is intended to illustrate how a good cluster housing scheme combines freestanding and attached buildings to generate an interesting site plan and quality community space. It is a mix of site design ideas from the cottage housing section with buildings too large to qualify as cottages. The cottage housing regulations did not allow a viable project in terms of yield. Introducing taller, attached structures into the mix preserves more open space, generates a viable square footage yield an achieves many of the site design goals associated with cottage housing better than a pure cottage scheme.

GREEN FACTOR

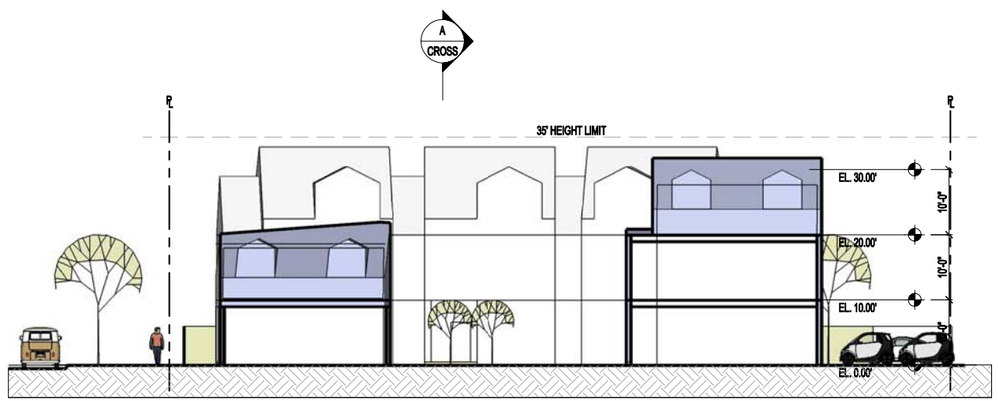
LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"		0	0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		2994	0.6	1796.4
BIORETENTION FACILITIES		0	1.0	0.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY		2994	0.1	299.4
SHRUBS OR PERENINIALS 2'+ AT MATURITY		1520	0.3	456.0
NUMBER OF SMALL TREES	0	50	0.3	0.0
NUMBER OF SMALL/MEDIUM TREES	2	100	0.3	60.0
NUMBER OF MEDIUM/LARGE TREES	0	150	0.4	0.0
NUMBER OF LARGE TREES	6	200	0.4	480.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM		0	0.7	0.0
VEGETATED WALLS		960	0.7	672.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL		0	0.2	0.0
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL		1090	0.5	545.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		1520	0.1	152.0
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		940	0.1	94.0
LANDSCAPING IN FOOD CULTIVATION		100	0.1	10.0
GREEN FACTOR NUMERATOR				4564.8
PARCEL SIZE				7200
TOTAL GREEN FACTOR				0.63



SITE PLAN SCALE: 3/32" = 1'-0"

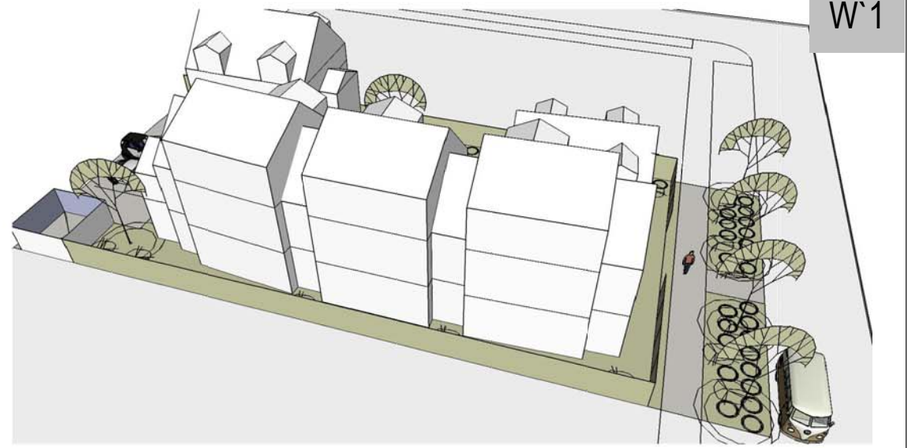


CROSS SECTION SCALE: 3/32" = 1'-0"

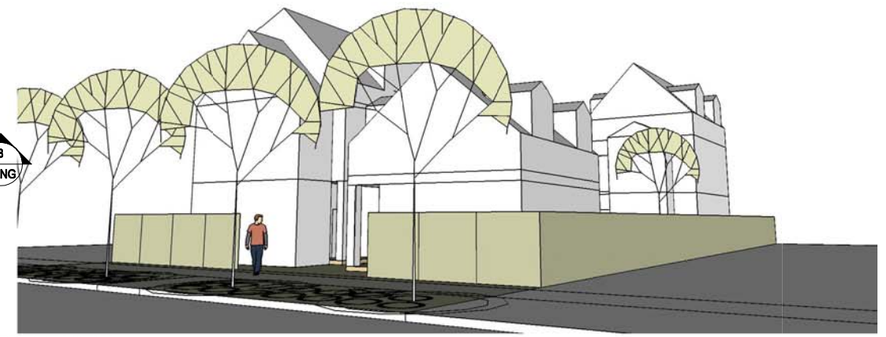


LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"

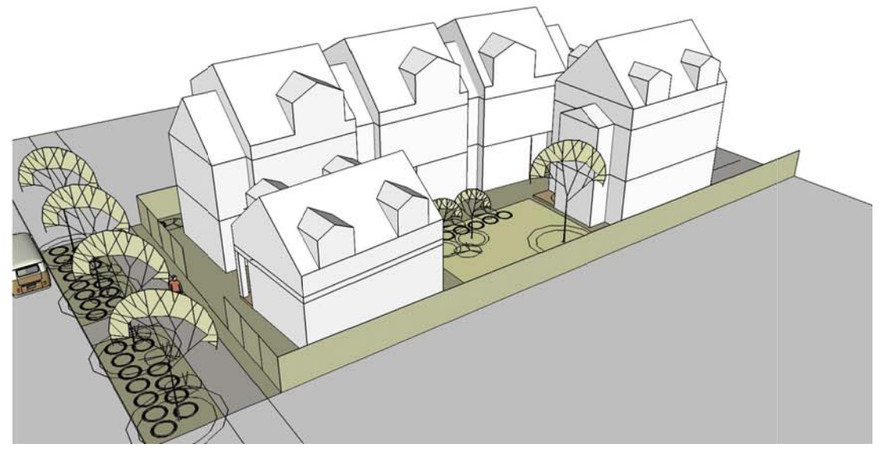
W`1



BIRDS EYE VIEW



STREET VIEW



BIRDS EYE VIEW

CORArchitecture

RAISED CENTER COURTYARD

L1	40' x 100'	MID-BLOCK
WHITE HAT	NO DEPARTURES	

PROJECT DATA

COMPONENT	AMOUNT
LOT SIZE	4000
FAR	0.98
NUMBER OF UNITS	3
TOTAL GROSS SQUARE FOOTAGE	4224
NUMBER OF PARKING STALLS	3
TYPE OF PARKING	COVERED, PARITALLY BELOW GRADE
OPEN SPACE TOTAL	750
OPEN SPACE AT GRADE	0
OPEN SPACE ABOVE GRADE	0
AMENITY SPACE SQUARE FOOTAGE	750
GREEN FACTOR (attach calculations)	0.64
LOT COVERAGE (SF)	62.5%
BUILDING HEIGHT/ROOF PEAK	23'-7"
IMPERVIOUS SURFACE	72.0%
OPEN SPACE/LOT SIZE RATIO	18.8%
UNIT DENSITY (UNITS PER LOT AREA)	1 UNIT/ 1333SF

ENABLING FACTORS:
1. Under current code, this scheme would require departures for: Front & Rear setbacks, Lot Coverage, Building Depth, and Open Space.
2. The height exception for sub-grade parking is very helpful. This scheme would have height limit problems without it.

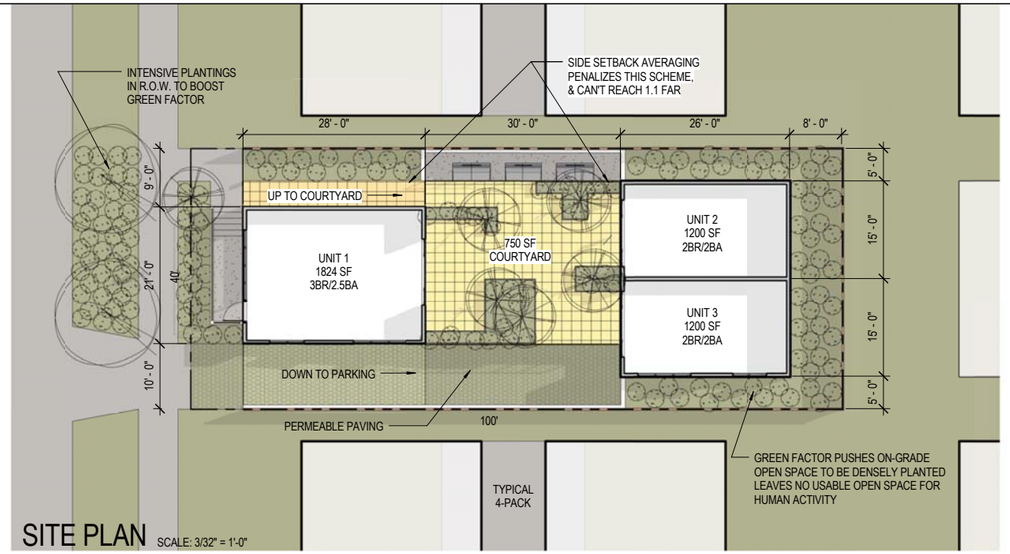
GATING MECHANISMS:
1. The scheme is a bit self limiting. In order to avoid the cost associated with true structured parking, the housing isn't built over the parking area. Once the necessary area has been allotted for parking, there's only so much area left over for buildings. Once that area has been filled out & built to three stories this scheme tops out at an FAR of about 1.1.

COST FACTORS:
1. The primary cost factor in this scheme is the recessed parking and the construction of the lid itself. However, since no FAR is used for parking, there is also a financial benefit.
2. The extent of green roof is driven by green factor. It would be a very costly element.
3. Using interior square footage for waste bin storage is a significant loss of saleable area.

EVALUATION:
1. FAR exemptions must be clarified to exempt all open space lids on top of parking. Otherwise, schemes like this will be penalized if they are built on downhill sites.
2. Green Factor, as currently proposed, doesn't incentivize design choices that are appropriate for housing. Expensive, significant amenities like permeable paving and green roofs are meagerly rewarded, while heavy shrub landscaping & vegetated walls are highly encouraged.
3. Area required for waste bin storage is excessive & inflexible. The required dimensions are incompatible with parking dimensions & side setback areas. Many developers will choose to simply place them in the front yard.
4. Setback averaging penalizes this scheme. With a 5' side setback, this project could meet the 1.1 FAR allowed by the zone.

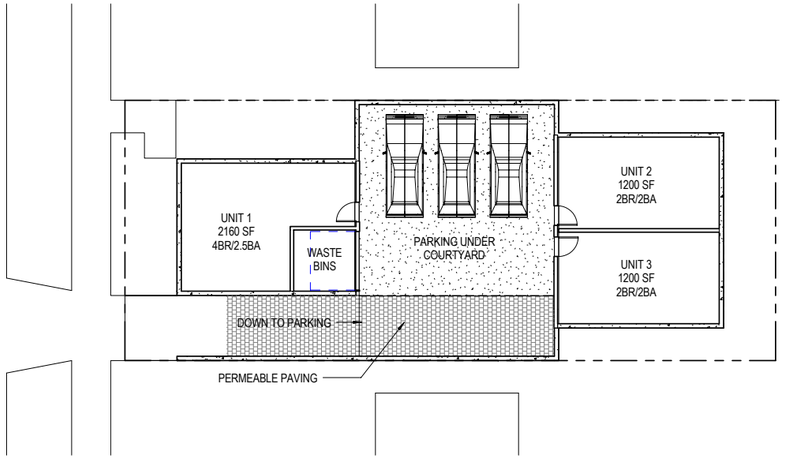
GREEN FACTOR

LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"			0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		1335	0.6	801.0
BIORETENTION FACILITIES			1.0	0.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY			0.1	0.0
SHRUBS OR PERENINIALS 2'+ AT MATURITY		967	0.3	290.1
NUMBER OF SMALL TREES	6	50	0.3	90.0
NUMBER OF SMALL/MEDIUM TREES	2	100	0.3	60.0
NUMBER OF MEDIUM/LARGE TREES		150	0.4	0.0
NUMBER OF LARGE TREES		200	0.4	0.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM		1480	0.7	1036.0
VEGETATED WALLS			0.7	0.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL		621	0.2	124.2
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL			0.5	0.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		1335	0.1	133.5
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		430	0.1	43.0
LANDSCAPING IN FOOD CULTIVATION			0.1	0.0
GREEN FACTOR NUMERATOR				2577.8
PARCEL SIZE				4000
TOTAL GREEN FACTOR				**0.64**



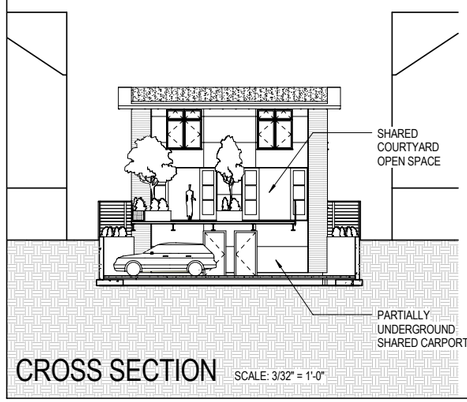
SITE PLAN SCALE: 3/32" = 1'-0"

COURTYARD VIEW

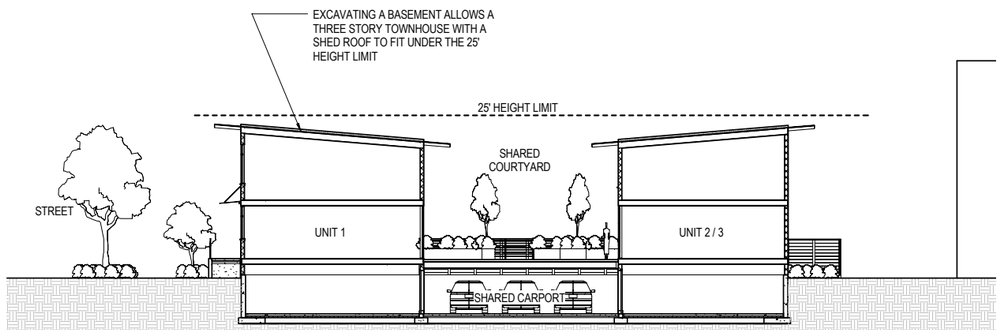


PARKING LEVEL PLAN SCALE: 3/32" = 1'-0"

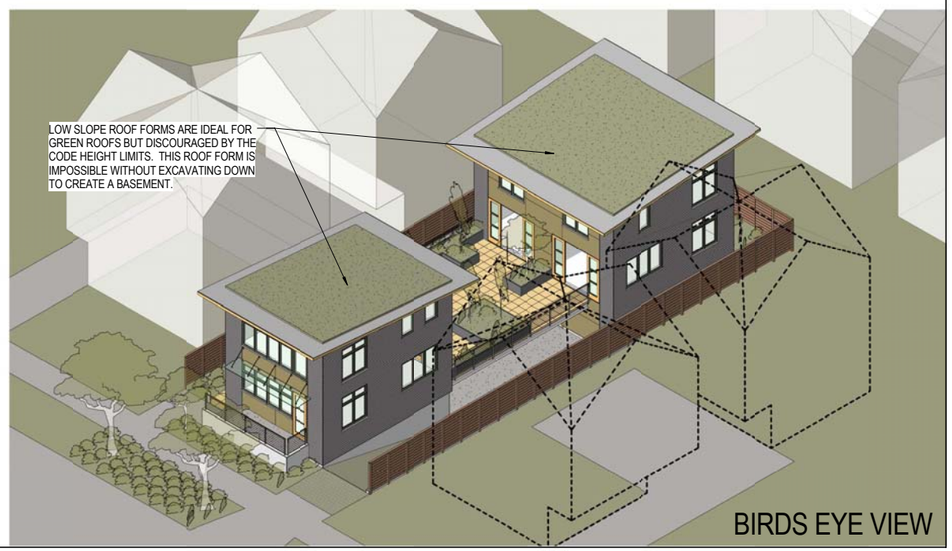
STREET VIEW



CROSS SECTION SCALE: 3/32" = 1'-0"



LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"



BIRDS EYE VIEW

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TOWNHOMES WITH MEWS

L3	60' x 120'	MID-BLOCK
WHITE HAT	NO DEPARTURES	

W3

PROJECT DATA

COMPONENT		AMOUNT
LOT SIZE		7200
FAR		1.15
NUMBER OF UNITS		6
TOTAL GROSS SQUARE FOOTAGE		8872
NUMBER OF PARKING STALLS		6
TYPE OF PARKING	Individual Garages	
OPEN SPACE TOTAL		2160
OPEN SPACE AT GRADE		2160
OPEN SPACE ABOVE GRADE		0
AMENITY SPACE SQUARE FOOTAGE		2160
GREEN FACTOR (attach calculations)		0.60
LOT COVERAGE (SF)		45.0%
BUILDING HEIGHT/ROOF PEAK		33'-2"
IMPERVIOUS SURFACE		45.0%
OPEN SPACE/LOT SIZE RATIO		30.0%
UNIT DENSITY (UNITS PER LOT AREA)	1 unit per:	1200 SF

ENABLING FACTORS:

1. On a sloping lot the FAR exception for sub grade parking could benefit this scheme
2. Common open space in lieu of private provides far better amenity and community space.
3. Lack of articulation requirements at side facing facades provides design flexibility

GATING MECHANISMS:

1. Backing space for parking erodes the first floor compromising unit relationship to the ground plane and reducing FAR
2. The scheme will not work well on lots less that 60' wide. It would work very well as a mirrored scheme on double lots
3. Achievable FAR is limited without reducing the mews area to narrow corridor. In an L3 zone significant development potential would be left on the table or the scheme would be reduced to a black hat example with poor outside space.

COST FACTORS:

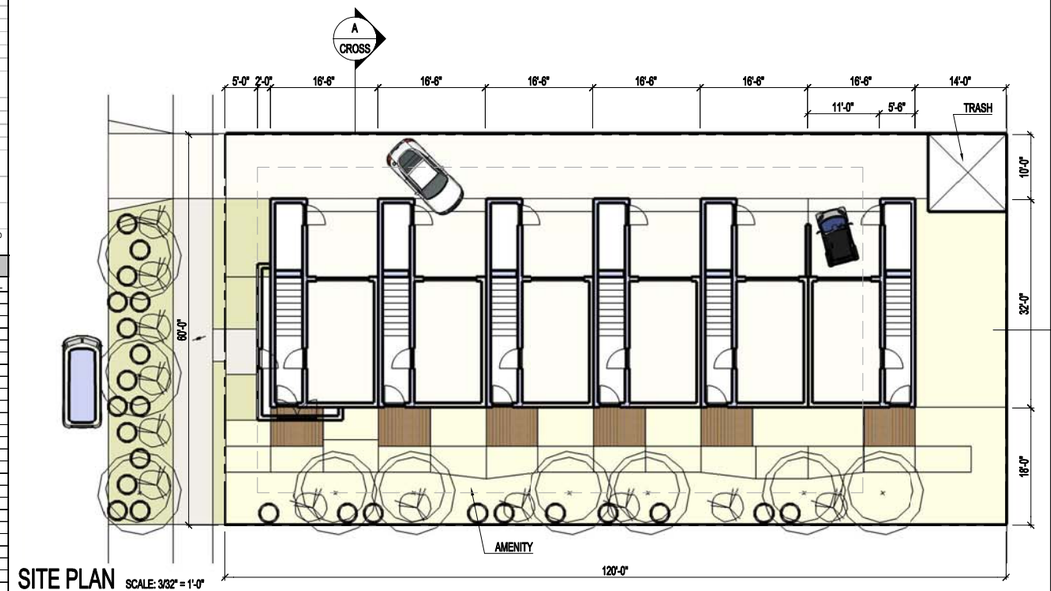
1. Typical townhouse construction keeps costs reasonable.
2. Ability to adapt easily to sloping sites reduces cost of excavation and soil import / export

EVALUATION:

1. Impact of Setback averaging unclear. Large open space oriented to the street should provide benefit against the façade area but there is no clear mechanism for this.
2. At 1.15 FAR this scheme provides a generous pedestrian mews. If the townhouses were built out to 1.4 FAR the mews would be reduced to a narrow swath and would not likely achieve the goal of providing quality community space
3. The scheme may actually benefit from a sloped lot which, if oriented advantageously, could bring the mews up to the living spaces while burying the driveway.
4. Area required for waste bin storage is excessive & inflexible. Preferred location in rear yard is a poor choice for pick up services. Scheme works better with individual storage areas.

GREEN FACTOR

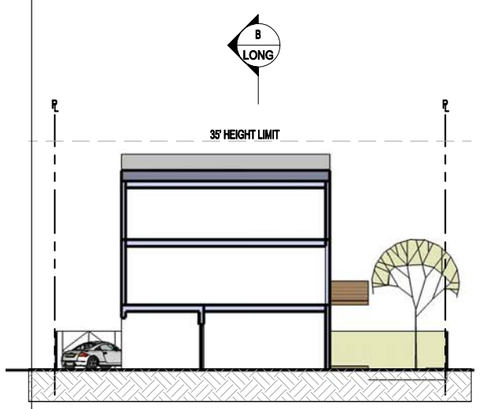
LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"		0	0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		3232	0.6	1939.2
BIORETENTION FACILITIES		0	1.0	0.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY		2909	0.1	290.9
SHRUBS OR PERENINIALS 2'+ AT MATURITY		1000	0.3	300.0
NUMBER OF SMALL TREES	2	50	0.3	30.0
NUMBER OF SMALL/MEDIUM TREES	0	100	0.3	0.0
NUMBER OF MEDIUM/LARGE TREES	9	150	0.4	540.0
NUMBER OF LARGE TREES	0	200	0.4	0.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM		0	0.7	0.0
VEGETATED WALLS		720	0.7	504.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL		0	0.2	0.0
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL		1090	0.5	545.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		1000	0.1	100.0
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		940	0.1	94.0
LANDSCAPING IN FOOD CULTIVATION		50	0.1	5.0
GREEN FACTOR NUMERATOR				4348.1
PARCEL SIZE				7200
TOTAL GREEN FACTOR				0.60



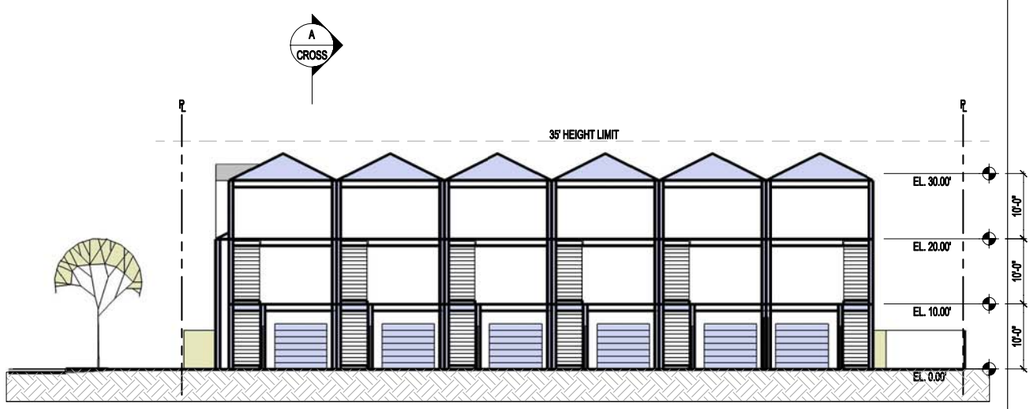
SITE PLAN SCALE: 3/32" = 1'-0"

BIRDS EYE VIEW

STREET VIEW



CROSS SECTION SCALE: 3/32" = 1'-0"



LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"

BIRDS EYE VIEW

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INFILL BEHIND EXISTING SF HOUSE

LDT	40' x 120'	MID-BLOCK
WHITE HAT	NO DEPARTURES, SEE ALTERNATE	

PROJECT DATA

COMPONENT	AMOUNT
LOT SIZE	4800
FAR	0.96
NUMBER OF UNITS	2 OR ALTERNATE 3
TOTAL GROSS SQUARE FOOTAGE	4882
NUMBER OF PARKING STALLS	1
TYPE OF PARKING	AT GRADE, W//20% TRANSIT REDUCTION
OPEN SPACE TOTAL	2015
OPEN SPACE AT GRADE	2015
OPEN SPACE ABOVE GRADE	0
AMENITY SPACE SQUARE FOOTAGE	2015
GREEN FACTOR (attach calculations)	0.60
LOT COVERAGE (1769 SF)	36.8%
BUILDING HEIGHT/ROOF PEAK	32'-9"
IMPERVIOUS SURFACE	1769 SF
OPEN SPACE/LOT SIZE RATIO	42.0%
UNIT DENSITY (UNITS PER LOT AREA)	1 UNIT/ 2400SF or 1 UNIT/1600 SF

ENABLING FACTORS:

1. This proposal is extremely similar to what can be done today under the current code. Why not be more bold?
2. Density limits remain in LDT, setbacks are the same as the current code because of the size of the new structure and the adjacency to single family to the rear of the development site.
3. The alternate proposal suggests providing two smaller homes, thereby increasing the allowable density. The project saves an existing 1500 sq. ft. 1902 home recently remodeled and proposes providing only one off-street parking stall in either the code compliant proposal, since the existing home does not have parking, and the site qualifies for the 20% parking reduction. The two smaller homes, 1272 sq. ft. each, provide two affordable homes in place of the larger expensive one prescribed by the density limits in the current code. Perhaps Density can qualify for a departure through Design Review or projects that save an existing dwelling qualify for a Density Bonus.

GATING MECHANISMS:

1. The scheme is limited by the Density limits still prescribed in LDT, L1 and L2 zones.

COST FACTORS:

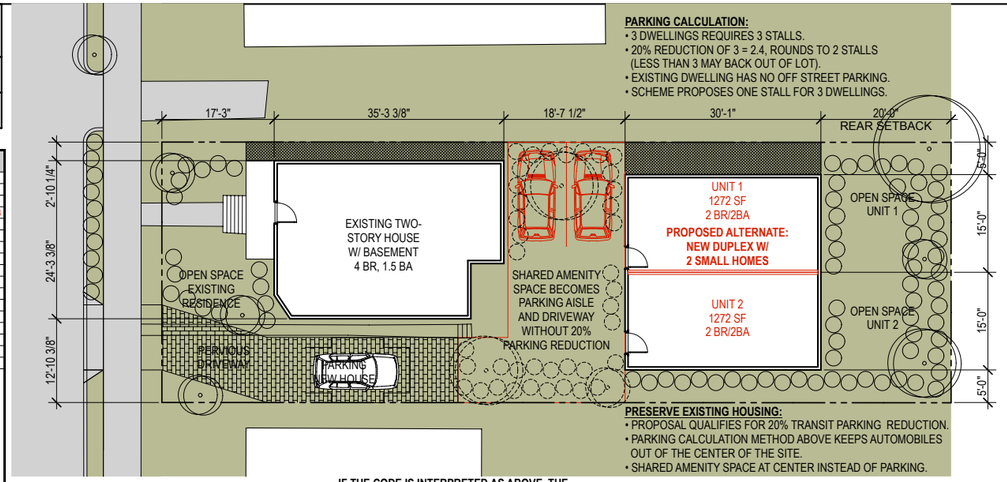
1. The primary cost factor in this scheme is needing to max out the allowable zoning envelope and having limits on density.
2. The alternate proposal spreads cost over two smaller homes, thereby making the FAR in the development more affordable.

EVALUATION:

1. The new legislation can be written to provide incentives to preserve existing housing stock, such as parking reductions and increased density potential. This additional flexibility will create affordable smaller homes.
2. Green Factor of 0.6 is difficult, even on a this site where parking and access occupies little ground space. The narrow planting strip contributes little to the overall Green Factor. Without providing green roofs or green walls, shrubs need to wrap all ground level open space, in excess of what is desirable.
3. Parking only one vehicle on site creates places for people. In the front of the existing house and behind the new structure are private open spaces, while the space between the two structures is a community amenity space. If more parking is required, that space is given over to a parking aisle and parking stalls.

GREEN FACTOR

LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"		0	0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		2015	0.6	1209.0
BIORETENTION FACILITIES		262	1.0	262.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY		2015	0.1	201.5
SHRUBS OR PERENINIALS 2'+ AT MATURITY		2000	0.3	600.0
NUMBER OF SMALL TREES	0	50	0.3	0.0
NUMBER OF SMALL/MEDIUM TREES	5	100	0.3	150.0
NUMBER OF MEDIUM/LARGE TREES	3	150	0.4	180.0
NUMBER OF LARGE TREES	1	200	0.4	80.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM			0.7	0.0
VEGETATED WALLS			0.7	0.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL		500	0.2	100.0
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL			0.5	0.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		1200	0.1	120.0
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		950	0.1	95.0
LANDSCAPING IN FOOD CULTIVATION			0.1	0.0
GREEN FACTOR NUMERATOR				2997.5
PARCEL SIZE				5000
TOTAL GREEN FACTOR				**0.60**

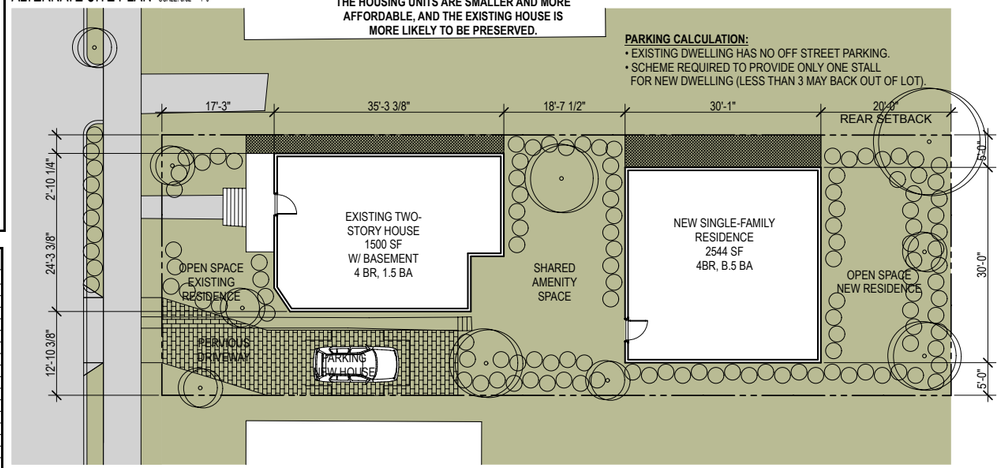


PARKING CALCULATION:
- 3 DWELLINGS REQUIRES 3 STALLS.
- 20% REDUCTION OF 3 = 2.4, ROUNDS TO 2 STALLS (LESS THAN 3 MAY BACK OUT OF LOT).
- EXISTING DWELLING HAS NO OFF STREET PARKING.
- SCHEME PROPOSES ONE STALL FOR 3 DWELLINGS.

PRESERVE EXISTING HOUSING:
- PROPOSAL QUALIFIES FOR 20% TRANSIT PARKING REDUCTION.
- PARKING CALCULATION METHOD ABOVE KEEPS AUTOMOBILES OUT OF THE CENTER OF THE SITE.
- SHARED AMENITY SPACE AT CENTER INSTEAD OF PARKING.

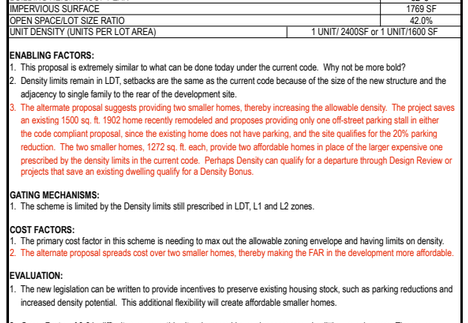
ALTERNATE SITE PLAN SCALE: 3/32" = 1'-0"

IF THE CODE IS INTERPRETED AS ABOVE, THE PROJECT IS MORE ECONOMICALLY FEASIBLE, THE HOUSING UNITS ARE SMALLER AND MORE AFFORDABLE, AND THE EXISTING HOUSE IS MORE LIKELY TO BE PRESERVED.



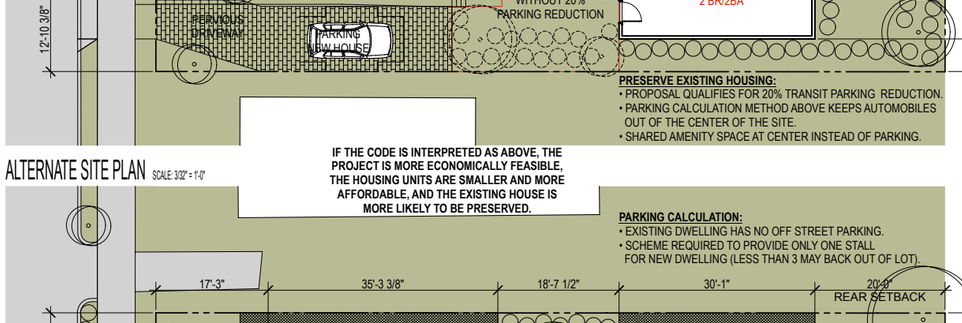
PARKING CALCULATION:
- EXISTING DWELLING HAS NO OFF STREET PARKING.
- SCHEME REQUIRED TO PROVIDE ONLY ONE STALL FOR NEW DWELLING (LESS THAN 3 MAY BACK OUT OF LOT).

SITE PLAN SCALE: 3/32" = 1'-0"



PROPOSED ALTERNATE: NEW DUPLEX W/ 2 SMALL HOMES IN SAME FAR AS SINGLE-FAMILY HOME

CROSS SECTION SCALE: 3/32" = 1'-0"



PROPOSED ALTERNATE: NEW DUPLEX W/ 2 SMALL HOMES IN SAME FAR AS SINGLE-FAMILY HOME

LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"

W4

VIEW TITLE

VIEW TITLE

BIRDS EYE VIEW

CORArchitecture

GARDEN COURTYARD

L1	40' x 100'	MID-BLOCK
WHITE HAT	NO DEPARTURES	

W5

PROJECT DATA

COMPONENT	AMOUNT
LOT SIZE	4000
FAR	0.87
NUMBER OF UNITS	3
TOTAL GROSS SQUARE FOOTAGE	3759
NUMBER OF PARKING STALLS	2
TYPE OF PARKING AT GRADE	ON-GRADE
OPEN SPACE TOTAL	1040
OPEN SPACE AT GRADE	1040
OPEN SPACE ABOVE GRADE	0
AMENITY SPACE SQUARE FOOTAGE	1040
GREEN FACTOR (attach calculations)	0.61
LOT COVERAGE (SF)	35.6%
BUILDING HEIGHT/ROOF PEAK	27'/35'
IMPERVIOUS SURFACE	34.9%
OPEN SPACE/LOT SIZE RATIO	26.0%
UNIT DENSITY (UNITS PER LOT AREA)	1 UNIT/ 1333SF

ENABLING FACTORS:
1. The 20% parking reduction is used to provide one fewer parking space, which frees up open space in the center of the site.

GATING MECHANISMS:
1. This scheme works well up to an FAR of about 1.0. As FAR gets higher, the central open space will gradually disappear.
2. This scheme falls apart with more than two parking spaces in the front of the lot.

COST FACTORS:
1. This is a very cost effective scheme.

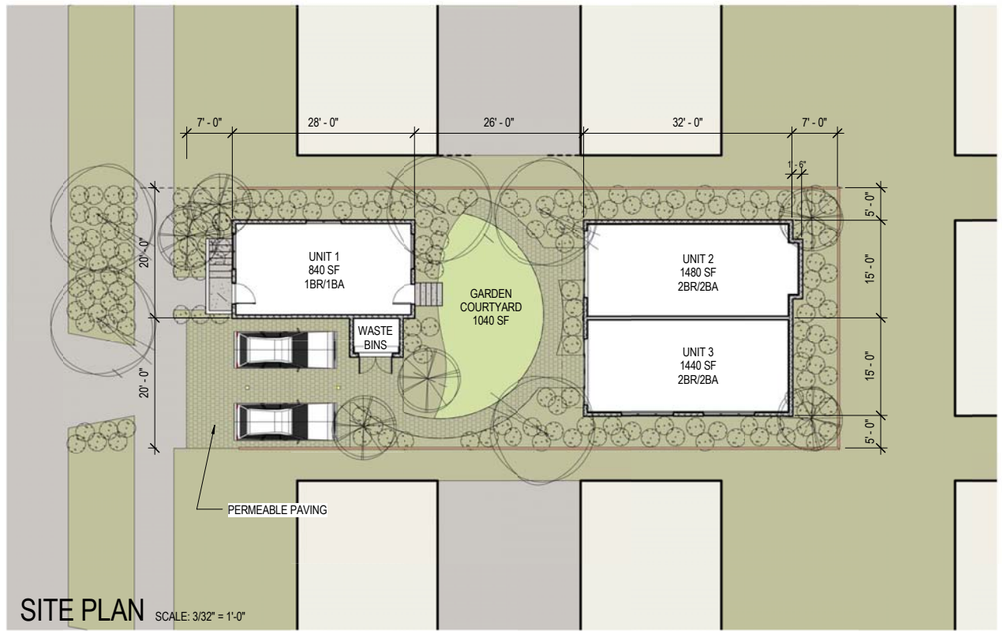
EVALUATION:
1. Bonus incentives should be provided when projects raise main floor level above street grade.

2. Green factor penalizes projects that provide usable green spaces (lawns). In this case, the scheme's lot coverage is so low that green factor is easily satisfied.
3. Despite its low FAR, none of the project floor area is used for parking. The project has usable interior space comparable to a 1.1 FAR 4-pack.
4. Should the extra parking space come with conditions, for example maximum unit size?

GREEN FACTOR

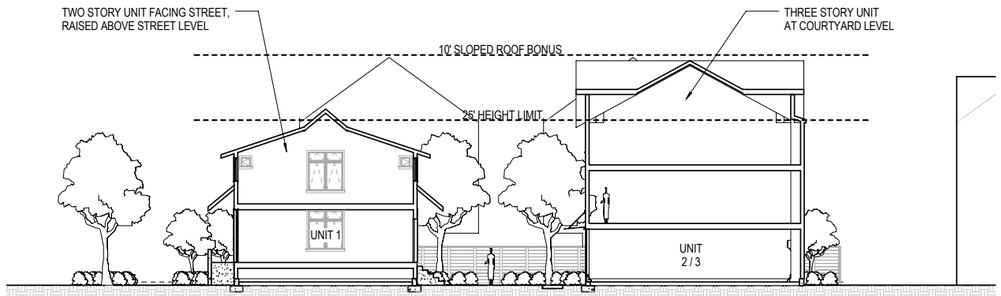
LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"		0	0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		1956	0.6	1173.6
BIORETENTION FACILITIES		0	1.0	0.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY		0	0.1	0.0
SHRUBS OR PERENNIALS 2'+ AT MATURITY		1568	0.3	470.4
NUMBER OF SMALL TREES		50	0.3	0.0
NUMBER OF SMALL/MEDIUM TREES	5	100	0.3	150.0
NUMBER OF MEDIUM/LARGE TREES	5	150	0.4	300.0
NUMBER OF LARGE TREES		200	0.4	0.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM			0.7	0.0
VEGETATED WALLS			0.7	0.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL		837	0.2	167.4
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL			0.5	0.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		1568	0.1	156.8
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		409	0.1	40.9
LANDSCAPING IN FOOD CULTIVATION			0.1	0.0
GREEN FACTOR NUMERATOR				2459.1
PARCEL SIZE				4000
TOTAL GREEN FACTOR				**0.61**

ELEVATION SCALE: 3/32" = 1'-0"



SITE PLAN SCALE: 3/32" = 1'-0"

CROSS SECTION SCALE: 3/32" = 1'-0"



LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"

STREET VIEW

BIRDS EYE VIEW

CORArchitecture

MIXED UNIT CONDOMINIUM

L1	50' x 100'	MID-BLOCK
WHITE HAT	CODE CHANGE	

W6

PROJECT DATA

COMPONENT	AMOUNT
LOT SIZE	5000
FAR	1.08
NUMBER OF UNITS	6
TOTAL GROSS SQUARE FOOTAGE	5832
NUMBER OF PARKING STALLS	0
TYPE OF PARKING AT GRADE	NONE PROVIDED
OPEN SPACE TOTAL	2922
OPEN SPACE AT GRADE	1950
OPEN SPACE ABOVE GRADE	972
AMENITY SPACE SQUARE FOOTAGE	2922
GREEN FACTOR (attach calculations)	0.61
LOT COVERAGE (SF)	45.0%
BUILDING HEIGHT/ROOF PEAK	26' / 34'
IMPERVIOUS SURFACE	56.5%
OPEN SPACE/LOT SIZE RATIO	58.4%
UNIT DENSITY (UNITS PER LOT AREA)	1 UNIT/ 833SF

ENABLING FACTORS:
1. CODE CHANGE: No Density Limits in small L zones.
2. No parking required in station areas.
3. Condominium ownership eliminates problems with unit lot subdivision and flats.

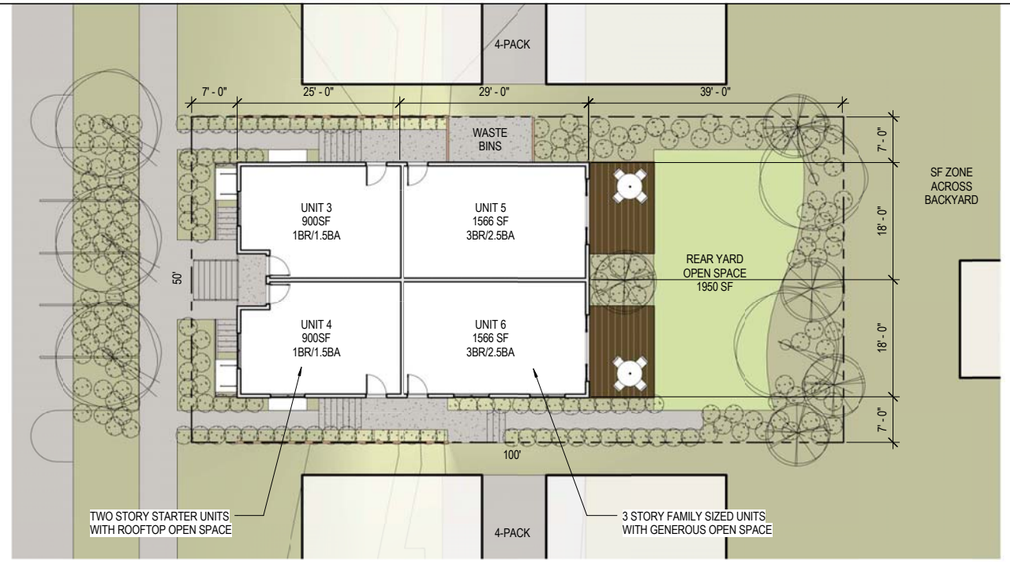
GATING MECHANISMS:
1. Setting main floor level above the street with a 25' height limit restricts the project to 2 stories above grade.
2. FAR limits prevent the project from expanding into the open space.

COST FACTORS:
1. Excavation & construction of the basement level.
2. Roof decks are more expensive than a conventional roof system.

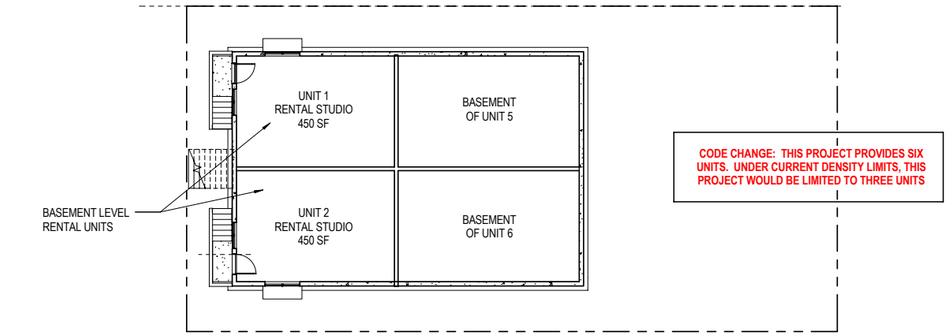
EVALUATION:
1. Lifting the main floor level above street level creates a better relationship between the public & private realm, but causes the project to lose one story of height above grade. If this project were built in a high FAR zone (L3), it would need a third story and a height limit of about 34'. Otherwise, the project would expand into the open space.
2. Green factor penalizes projects that provide usable green space (lawn). In this case, the scheme's lot coverage is so low that green factor is easily satisfied.
3. Where parking requirements are still in effect, removing density limits would be a fairly modest change, as parking minimums are a density limit as well. In station areas and urban centers where parking is not required, removing density limits could potentially lead to dramatic changes in unit size and affordability.
4. Consider incentives for projects that provide basements, including: FAR waiver for basement areas, height bonus for constructing a basement.

GREEN FACTOR

LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"			0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		2741	0.6	1644.6
BIORETENTION FACILITIES			1.0	0.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY			0.1	0.0
SHRUBS OR PERENINIALS 2'+ AT MATURITY		1936	0.3	580.8
NUMBER OF SMALL TREES		50	0.3	0.0
NUMBER OF SMALL/MEDIUM TREES	5	100	0.3	150.0
NUMBER OF MEDIUM/LARGE TREES	5	150	0.4	300.0
NUMBER OF LARGE TREES		200	0.4	0.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM			0.7	0.0
VEGETATED WALLS			0.7	0.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL			0.2	0.0
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL			0.5	0.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		2741	0.1	274.1
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		853	0.1	85.3
LANDSCAPING IN FOOD CULTIVATION			0.1	0.0
GREEN FACTOR NUMERATOR				3034.8
PARCEL SIZE				5000
TOTAL GREEN FACTOR				**0.61**

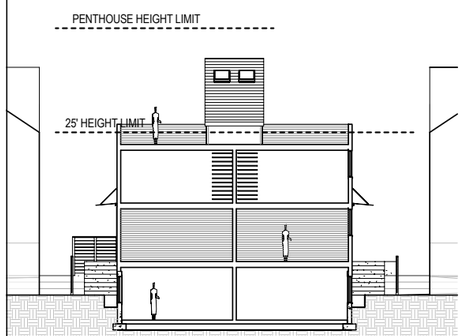


SITE PLAN SCALE: 3/32" = 1'-0"

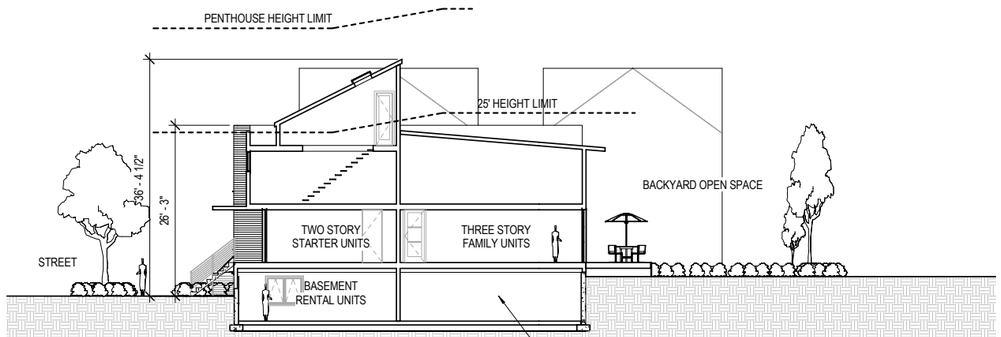


CODE CHANGE: THIS PROJECT PROVIDES SIX UNITS. UNDER CURRENT DENSITY LIMITS, THIS PROJECT WOULD BE LIMITED TO THREE UNITS

BASEMENT LEVEL PLAN SCALE: 3/32" = 1'-0"

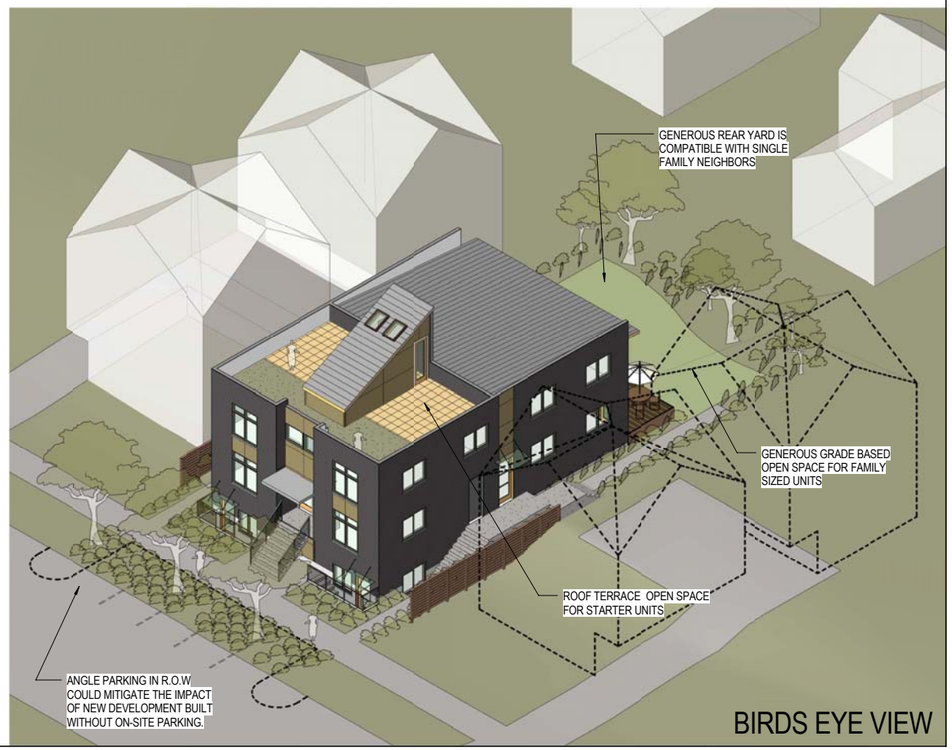


CROSS SECTION SCALE: 3/32" = 1'-0"



LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"

STREET VIEW



BIRDS EYE VIEW

CORArchitecture

TOWNHOUSE INFILL

L3	40' x 91'	MID-BLOCK THROUGH LOT
WHITE HAT	SETBACKS, CURB CUT, CLERESTORIES, FAR	

PROJECT DATA

COMPONENT	AMOUNT
LOT SIZE	3640
FAR (FAR IS ABOUT 1.4 IF BASEMENT LEVEL IS NOT INCLUDED)	1.62
NUMBER OF UNITS	4
TOTAL GROSS SQUARE FOOTAGE	6350
NUMBER OF PARKING STALLS	4
TYPE OF PARKING	AT GRADE MINOR STREET
OPEN SPACE TOTAL	690
OPEN SPACE AT GRADE	180
OPEN SPACE ABOVE GRADE	510
AMENITY SPACE SQUARE FOOTAGE	957
GREEN FACTOR (attach calculations)	**0.60**
LOT COVERAGE (2445 SF)	52.4%
BUILDING HEIGHT/ROOF PEAK	34'-0"
IMPERVIOUS SURFACE	52%
OPEN SPACE/LOT SIZE RATIO	19.0%
UNIT DENSITY (UNITS PER LOT AREA)	1 UNIT/ 910 SF

ENABLING FACTORS:

1. Shared Amenity space replaces private open space in this scheme, creating a common courtyard at the project's center.
2. Reduced setbacksof 7 feet , averaged for the entire site (front + sides + rear / total building face length = average setback instead of averaging each side independently) allows for greater flexibility. This averaging method creates a 5-foot front setback, a 17-foot "rear" setback in the the second "front setback" along the minor street. of the through lot. A courtyard is provided on the south side of the property. Parking is provided at grade at the elevation of the lower street below a green roof.
3. Departures are required for an interpretation of the side setback provision, for curb cut width, for clerestories at the roof and for FAR (or an incentive).

GATING MECHANISMS:

1. Because basement area is considered part of FAR, the project achieves an FAR of 1.62.
2. Because parking is provided through a wide curb cut of the minor street (similar to an alley condition) a high FAR is achievable on this small lot.

COST FACTORS:

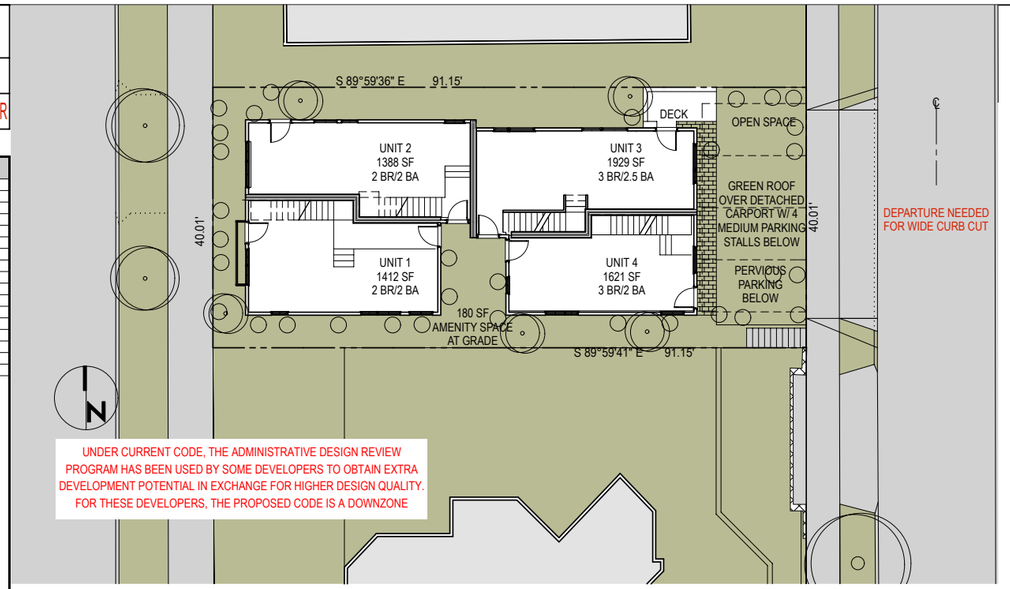
1. The primary cost factors in this scheme are the roof top photovoltaic solar panels, not addressed sufficiently in the code update, the third floor decks and green roof over parking.

EVALUATION:

1. On a small through lot, 40 feet x 91 feet, flexibility in the code is especially relevant. The flexibility created by going to FAR, reduced setbacks and amenity shared open space, while encouraging sustainable construction choices enables this very site specific scheme.
2. The areas for trash can be handled at the front of each car parking stall.
3. The proposed roof provides clerestories along the north building façade for the length of the building to bring northern to bring northern light into the units and provide a roof slope for the solar photovoltaic panels.
4. All roof types should qualify for the additional 5 feet of height in Lowrise 3 including clerestories and sheds.

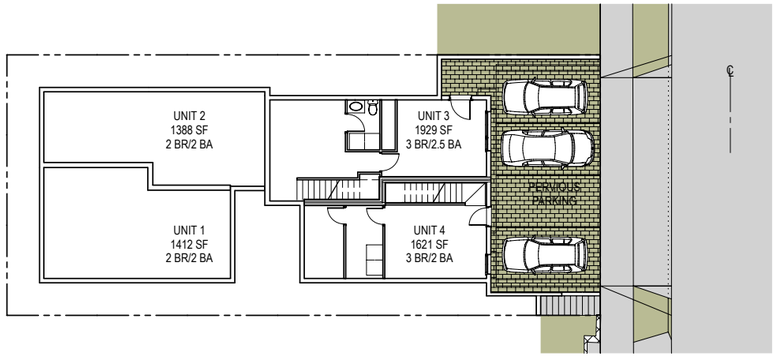
GREEN FACTOR

LANDSCAPE ELEMENT	NUM	AREA (SF)	FACTOR	TOTAL
LANDSCAPED AREA W/ SOIL DEPTH LESS THAN 24"		0	0.1	0.0
LANDSCAPED AREA W/ 24" OF SOIL OR GREATER		1396	0.6	837.6
BIORETENTION FACILITIES		0	1.0	0.0
GROUND COVERS OR PLANTS LESS THAN 2' AT MATURITY		1396	0.1	139.6
SHRUBS OR PERENINIALS 2'+ AT MATURITY		512	0.3	153.6
NUMBER OF SMALL TREES	0	50	0.3	0.0
NUMBER OF SMALL/MEDIUM TREES	5	100	0.3	150.0
NUMBER OF MEDIUM/LARGE TREES	1	150	0.4	60.0
NUMBER OF LARGE TREES	1	200	0.4	80.0
NUMBER OF LARGE TREES PRESERVED			0.8	0.0
GREEN ROOF BETWEEN 2" AND 4" OF GROWTH MEDIUM			0.4	0.0
GREEN ROOF OF AT LEAST 4" OF GROWTH MEDIUM		510	0.7	357.0
VEGETATED WALLS			0.7	0.0
APPROVED WATER FEATURES			0.7	0.0
PERMEABLE PAVING OVER BETWEEN 6" AND 24" OF SOIL OR GRAVEL			0.2	0.0
PERMEABLE PAVING OVER AT LEAST 24" OF SOIL OR GRAVEL		544	0.5	272.0
STRUCTURAL SOIL SYSTEMS			0.2	0.0
BONUS				
DROUGHT TOLERANT OR NATIVE PLANT SPECIES		850	0.1	85.0
LANDSCAPED AREA > 50% IRRIGATION BY HARVESTED RAINWATER			0.2	0.0
LANDSCAPING VISIBLE FROM RIGHT OF WAY OR PUBLIC OPEN SPACES		600	0.1	60.0
LANDSCAPING IN FOOD CULTIVATION			0.1	0.0
GREEN FACTOR NUMERATOR				2194.8
PARCEL SIZE				3640
TOTAL GREEN FACTOR				**0.60**



UNDER CURRENT CODE, THE ADMINISTRATIVE DESIGN REVIEW PROGRAM HAS BEEN USED BY SOME DEVELOPERS TO OBTAIN EXTRA DEVELOPMENT POTENTIAL IN EXCHANGE FOR HIGHER DESIGN QUALITY. FOR THESE DEVELOPERS, THE PROPOSED CODE IS A DOWNZONE

SITE PLAN SCALE: 3/32" = 1'-0"



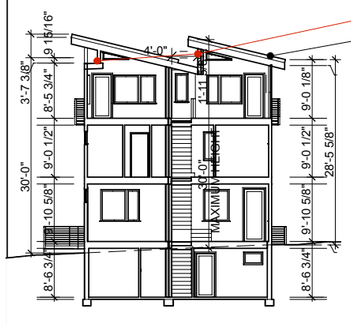
BASEMENT / PARKING PLAN SCALE: 3/32" = 1'-0"

STREET VIEW

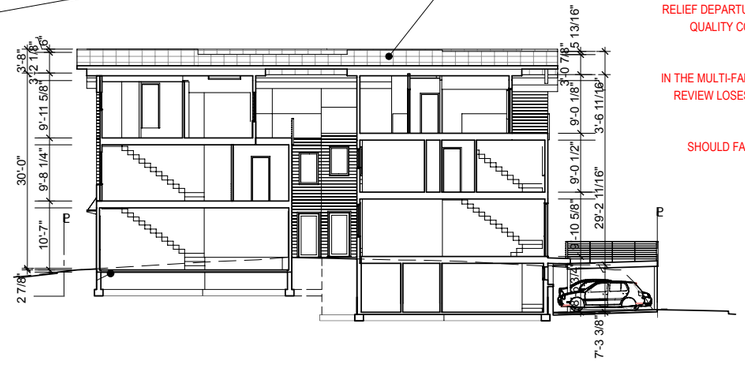
STREET VIEW

CLERESTORY PROVIDED ALONG NORTH PROPERTY LINE AND BETWEEN ROOF SLOPES.

SOLAR PHOTOVOLTAIC PANELS ON STRUCTURE ROOF.



CROSS SECTION SCALE: 3/32" = 1'-0"



LONGITUDINAL SECTION SCALE: 3/32" = 1'-0"

THIS IS A REAL PROJECT RECENTLY APPROVED THROUGH ADMINISTRATIVE DESIGN REVIEW. LOT COVERAGE AND SETBACK RELIEF DEPARTURES WERE GRANTED. GREEN FEATURES AND HIGH QUALITY CONSTRUCTION WERE EXCHANGED FOR EXTRA DEVELOPEMENT POTENTIAL.

IN THE MULTI-FAMILY UPDATE, FAR IS NON-DEPARTABLE, SO DESIGN REVIEW LOSES SOME OF ITS CAPACITY FOR GIVE AND TAKE ON DIFFICULT SITES .

SHOULD FAR BE NEGOTIABLE THROUGH DESIGN REVIEW?

BIRDS EYE VIEW